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For information on vision, eye health and safety, call 1-800-331-2020.

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National Office:  
PREVENT BLINDNESS AMERICA®  
500 East Remington Road  
Schaumburg, IL 60173  
[www.preventblindness.org](http://www.preventblindness.org)

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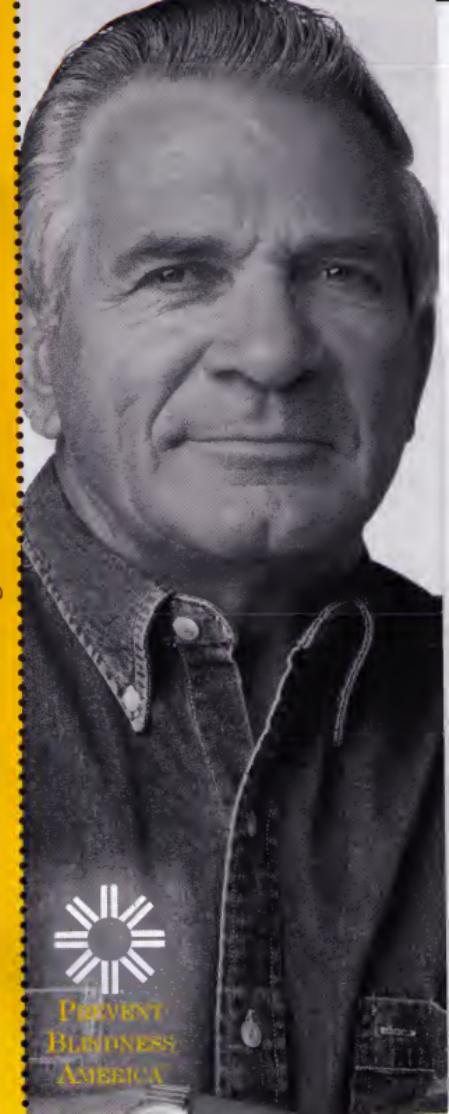
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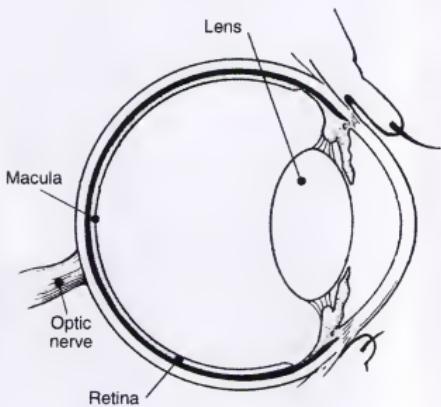
Age-Related Macular Degeneration



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## What is age-related macular degeneration?

Age-related macular degeneration (AMD) is a common cause of vision loss in the U.S. and usually strikes people over the age of 60. Few cases occur among persons under 60. After this age, the frequency of the disease rises dramatically.



AMD is a degenerative disease that affects the macula, a small spot in the central area of the retina located at the back of the eye. The macula is responsible for sight in the center of the field of vision and is the most sensitive part of the retina. When the macula is damaged by AMD, the center of the visual field may become blurred, distorted or develop a blind spot.

When a large amount of central vision is lost, people may find it very difficult to do simple, everyday activities that require sharp vision such as reading, sewing, driving or recognizing faces. Fortunately, AMD almost never results in complete blindness since side vision is usually not affected.

Most of those who are affected by AMD can maintain their independence and can usually see well enough to perform most daily activities.

AMD can progress rapidly or slowly. The disease usually affects one eye first and then the other.

There are two forms of AMD: wet (exudative) and dry (non-exudative). Though less common, the "wet" form is responsible for the majority of severe vision loss due to AMD. It is called "wet" because tiny blood vessels begin to grow rapidly beneath the retina, and often break and leak blood and fluid. This distorts vision and causes scar tissue to form.

The "dry" form is caused by a breakdown or thinning of the tissues in the macula. It is very common, accounting for 70 percent to 80 percent of the cases of AMD. Vision loss with dry AMD tends to be moderate.

## How is AMD detected?

As AMD progresses, symptoms become more and more obvious. If you have AMD, you may notice that:

- Straight lines in your field of vision—such as telephone poles, the sides of buildings or streetlight posts—appear wavy.
- The type in books, newspapers and magazines appears blurry.
- Dark or empty spaces may block the center of your vision.

If you or anyone in your family is diagnosed with AMD, it is important to check the central vision separately in each eye daily and report any changes to your eye doctor. These changes may include:

- Difficulty in reading.
- Distortion of straight lines.
- Abnormal findings on the Amsler Grid.

The Amsler Grid is a cross-hatched pattern of straight lines. To someone whose central vision is deteriorating, the pattern of lines will look blurred, distorted or discolored.

AMD can also be detected through an eye examination by an eye doctor. Those over 65 should have an eye exam every year or two.

If you have had a professional eye exam within the past few years (during which the eye doctor dilated your eyes), you probably have been checked for AMD. An eye doctor can detect the disease, as well as certain changes in the eye that indicate a risk of developing AMD.

One such change is the appearance of small, yellowish deposits at the back of the eye called drusen. Drusen usually do not interfere with sight to a significant degree.

## Who is likely to develop AMD?

Age-related macular degeneration is the leading cause of visual impairment for those age 75 and older. It is the most common cause of visual impairment among those over age 65.

AMD may be associated with arteriosclerosis, hereditary factors, eye trauma or other conditions that are not yet clearly understood.

## Some symptoms of macular degeneration



1. A dark or empty spot is at the center of one's vision.

Many older persons with vision difficulties find a surprisingly improved visual world simply through an eye examination and the prescription of stronger eyeglasses or bifocals. However, others, particularly those with degenerative disease such as those affecting the macula or the optic nerve, may require more powerful devices, called low-vision aids. Such determination will be made by the eye specialist after a complete eye exam.



2. Type looks blurred.
3. Vertical lines seem distorted.

## How is AMD treated?

There are no treatments available today that are proven to prevent AMD. Researchers are developing treatments for dry AMD, but these are not yet generally available.

Some people with wet AMD can be helped by different types of laser treatment. One kind of laser treatment, photodynamic therapy, combines the use of a weak laser beam with a special light-sensitive dye. The dye helps concentrate the power of the laser to destroy the troublesome new blood vessels under the retina.

Before photodynamic therapy became available, the only accepted treatment for wet AMD was to use a stronger laser that could directly destroy the new blood vessels. This procedure is called photoocoagulation. Unfortunately, this laser is also strong enough to damage the fragile light-sensing cells on the retina. This means that wherever the laser is used to destroy the tiny new blood vessels, the light-sensing cells are also destroyed. This leaves small areas where vision is permanently lost (blind spots). However, the treatment helps to slow or stop the growth of new blood vessels that could further destroy vision.

Laser photoocoagulation is still the most effective treatment for many people with wet AMD. In these cases, the amount of vision lost by the stronger laser is felt to be worthwhile in return for protecting the vision that remains.

## Low vision rehabilitation

For many people who lose some degree of sight to AMD, low vision rehabilitation can help to make the most of their remaining sight. Low vision rehabilitation can help you keep your independence and improve your quality of life.

Orientation and mobility training can give you skills that help you travel safely despite your limited vision. You can also learn ways to arrange your household to make living with low vision easier.

Low vision aids are often prescribed for people with partial sight. Some low vision aids include:

- Telescopic lenses.
- Magnifying lenses or special eyeglasses.
- Closed-circuit televisions.
- Computers with large screens.
- Adaptive devices such as large-print books and magazines, bright reading lamp and talking clocks.

These aids can all help you keep the lifestyle you are used to.

## What can I do about AMD?

The key to preventing vision loss is regular eye exams. People over 65 years of age should get a complete eye exam every one or two years - even if they have no problem seeing.

Taking good care of yourself can also go a long way toward caring for your eyesight. A well-balanced diet can help ensure that your body has all the nutrients it needs to stay healthy. Exercise not only keeps you fit but can also help relieve stress. Consult your doctor before beginning an exercise program or adding nutritional supplements to your diet.

Finally, a cure for AMD may be decades away. Anyone interested in AMD can help support vision research by contacting their legislators and asking them to support federal research funding. They can also support organizations like PREVENT BLINDNESS AMERICA® which provide funding for research and education.

## Others in this series:

- *Cataracts*
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- *Family Home Eye Test*
- *Signs of Possible Eye Trouble in Adults*
- *Common Eye Problems*

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